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An Inaugural Essay on Gonorrhoea Virulenta

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by William Edward Hardaway of Virginia.

"Sunt delicta tamen, quibus ignoscere velimus." Hor:

Philadelphia 1829

On
Gonorrhœa Virulenta.

From the ~~malignant~~ character assumed by gonorrhœa in several which have come under my personal observation as well as some facts connected with the disease, calculated in themselves to diffuse some light upon a subject about which various conflicting opinions in this country, as also in Europe exist among the medical profession, the author of this dissertation is induced to offer some remarks on gonorrhœa, not with the view of arrogating to himself any new theory upon the subject, or of making a vain attempt at a display of talents which his humble opinion of himself will not allow, but, by an impartial statement of a case, for the accuracy of which he pledges himself if no other effect be produced, to elicit from abler and more experienced judgment the true pathology of the disease which will be the subject of future consideration.

We find authors of great celebrity on the one hand contending with indefatigable zeal and talents for the establishment of

the theory of the nonsyphilitic nature of gonorrhœa, or in other words, that there is no identity in the virus of syphilis and gonorrhœa. At the same time, others of equal fame and eminence in every department of science advocate the opposite opinion; both parties adducing cases and many cogent arguments to sustain their favourite doctrine. That both can be altogether in the right, where such conflicting opinions exist is not to be supposed; and it is alone by matters of fact, undisguised by the sophistry of ingenious and learned discourses, divested of all the materials calculated to mislead the novice in medical science faithfully detailed, that we are to avoid a labyrinth of inextricable and often fatal perplexities.

Far be it from me, as intending to detract from the incalculable benefits resulting from a well based theory, or as attempting its exclusion from subjects that are medical; for it as properly belongs to this, as to any other science, as by it we are often enabled to arrive at light, reflected from the occult regions of disease, by which we are guided with unerring certainty through all the mazes and meanderings of the operations of nature in

health or disease. But there is a kind of theory or speculation founded upon false premises, which should be discarded as unsubstantial and wanting the true principles upon which we are to erect a train of reasoning, either from facts, analogy or sympathy, deceptive in itself, and if not watched for, will insensibly and syrenlike

"draw us on
"To guileful shoals and meads of fatal joy."

With these remarks, introductory to the subsequent pages I shall now proceed to take into consideration subjects more immediately relating to gonorrhœa.

The time from which we may date the origin of the disease termed by the generality of authors gonorrhœa seems to extend very far back into antiquity. We find mention of a disease in the sacred writings called γονοῤῥοῦς, characterized by some of the most genuine symptoms; and in the writings of Celsus as long ago as twelve centuries, the venereal disease is said to be most accurately described. Without attempting to fix the period of the origin of this malady, which is deemed an un-

important point, only as it relates to the history of diseases and of medicine, it will be deemed adequate to the chief design of this discourse, to leave this part of the subject to the curious, and to those who may have a better and more extensive opportunity of research to join in the discussion. It seems however, a well established fact, from the preceding authority that gonorrhoea must have had an existence in some one or other of its forms antecedently to the discovery of America by Columbus in the year 1492, about which time it is contended by some, that the disease was carried from this Country to Europe; and if gonorrhoea, chancre, and lues venerea, all arose from the same original infection, as is asserted by the most respectable authority and in which opinion I entertain the most entire credence; it therefore, follows, that in arriving at a just conclusion upon this point, that the disease in question could not have originated in America, and that in ascribing it, this country as its place of nativity, if the expression is allowable, not only illiberal but unjustifiable calumny has been attempted to be imposed upon our national character.

The nosological arrangement of the illustrious Cullen places gonorrhoea

in the class, locales, and order, apocenoses; and this he divides into four species, and of these, gonorrhœa virulenta is one. As it is my intention to confine myself to the consideration of this particular variety of the disease, it will, not only be unnecessary, but foreign to the purpose of this essay to introduce the others.

Different writers have affixed other technicals to the same disease, either from choice or else to render the medical nomenclature more descriptive. Thus, we find gonorrhœa, gonorrhœa virulenta, maligna, venerea, and blennorrhagia syphilitica are all employed as synonymous terms, expressive of that local affection the effect of irritation of the mucous membrane of the urethra, caused by a virus, sui generis. In proceeding with the subject, the term adopted in the commencement of this essay will be retained as the title to the disease, which will form the subject of the subsequent as well as the preceding pages, more on account of its general acceptation than any idea to be found from the import of the words in the language from which it is derived. For were we to choose for the sake of description, there would be found fewer objections to the term blennorrhagia syphilitica employed by Swediaur,

taking its derivation from the greek word βλεννα, mucus, and ῥέω, to flow than any which has occurred to me; since it is considered and very generally admitted that the discharge from a gonorrhœa is not poisonous semen, but, that it is a muco-purulent matter rendered acrid and morbific by its union with the original and peculiar virus.

Gonorrhœa, by which I wish always to be understood as meaning the virulent form of the disease unless otherwise expressed, is unlike most other diseases in this particular; that, whereas, there are various causes which may operate to their production, it has invariably the same exciting cause. It is generated by the application of an infectious matter to an exposed surface; and this most usually takes place by the direct contact of parts during the copulative act of the sexes, although, instances are on record of its propagation by occupying the seat of an infected person, on which a portion of the virus has been deposited and thus applied to the penis of the male, or vulva of females.

When from any cause, the infection is communicated so as to be productive of disease, the symptoms of contamination usually make their appearance from the fifth to the twelfth day; They

frequently, however, are not manifested until a later period, and sometimes, owing to certain habits or peculiarities of constitution producing a predisposition to the disease, it has been known to assail its unfortunate victim in the course of one or two days.

The distinguishing symptoms of gonorrhoea virulenta, I must be indulged in transcribing from Professor Gibson's work on surgery containing a treatise on this subject, in which, they are laid down with that perspicuity and accuracy of observation so peculiar to himself, that I am sure the liberty I have allowed myself, will be granted by others and be far more acceptable than any other offering of the time I could possibly make. In the commencement of gonorrhoea, the symptoms "are a slight titillation or uneasiness of the glans penis, a pouting or turgidity of the lips of the urethra, more or less redness or inflammation about the prepuce and glans, together with a general fulness of the whole penis. These are soon followed by a discharge from the urethra of a thin whitish fluid, at first resembling common mucus, but speedily changing into a thick, tenacious purulent matter of yellow colour and peculiar smell. Considerable pain is now felt

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along the urethra and perineum, the urine is discharged in a thin, wire-like or forked stream, accompanied with a burning heat or severe scalding. By this time the inflammation attains a considerable height, the glans penis becomes swollen, tense, of a bright red colour, and its surface has a peculiar shining aspect, as if glazed or highly polished. The pain and ardor urinæ are increased in proportion as the inflammation rises, and the colour of the discharge from the same cause, changes from a deep yellow to a greenish tint. Oftentimes the glans penis is excoriated, and there is a copious discharge not only from the urethra but from the whole internal surface of the prepuce." These are the symptoms of gonorrhœa virulenta, most or all of which attend in every case, and where they do exist there can be no error in the diagnosis. It is sometimes difficult to determine the existence of this disease in women, from the comparative insensibility of the parts; and without a close discrimination by attention to the symptoms, it may readily be mistaken for leucorrhœa, and vice versa.

When from improper treatment, neglect or any other cause, the

the disease is permitted to progress uninspected in its course, other symptoms arise, giving it in some instances a new character. Among these, when the inflammation runs high extending itself to the reticular portion of the corpus spongiosum of the urethra, may be enumerated that spasmodic contraction of the penis called chordee, in which an involuntary and excessively painful erection of this organ takes place, during which, the frænum is drawn down whilst the body of the penis is forced upwards. By repeated attacks of chordee it sometimes happens that effusion of coagulable lymph, into the substance of the corpus spongiosum takes place, occasioning a permanent semicircular shape of the penis; and it not unfrequently happens in this way, that rupture of the vessels of the urethra occurs, giving rise to considerable hemorrhage from this organ.

The inflammatory stage continuing and extending itself along the canal of the urethra, affects the glands situated in its course, the orifices of the different ducts forming communications with the urethra, and finally reaches the neck of the bladder.

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These several stages of gonorrhœa are often productive of strictures hernia humoralis, partial or total suppression of urine, and many of the varied affections consecutive to a virulent gonorrhœa; but, as these several diseased states are however not always the effects of gonorrhœa, inasmuch as they frequently have a different cause for their production, and may therefore be considered as separate and distinct diseases, independent of this malady, it might be thought a work of supererogation, to enter into a minute detail concerning them in an essay of this kind, where as much brevity should studied as is consistent with a full history of the main subject of discussion. In pursuance of these, and other views, I shall now pass on to the consideration of a more important point connected with gonorrhœa, and that is, does gonorrhœa ever give rise to syphilis? And, does the converse of this ever take place?

That the virus of gonorrhœa under certain circumstances is sometimes and may always be taken into the general system, through the medium of the absorbents, when it comes in contact with an abraded or ulcerated surface, thereby producing syphilitic contamination of

of a more or less aggravated form, it appears to me, we are warranted in believing from daily observation and experience. And the same may be said in relation to syphilis in the production of gonorrhœa, if we are to rely upon authority of high character for a statement of facts pertaining to this interesting subject. But, as it is not expected that opinions unsupported by either facts or arguments, will be received to the establishment of any principle or doctrine which has not had the sanction of all parties; it therefore becomes a duty, incumbent upon me in examining this subject, to advance something more than mere hypothetical assertion to elucidate the position of an identity of the virus in either form of the disease.

In the very threshold of this enquiry it may be asked, if it be true that gonorrhœa and syphilis have a common poison operating reciprocally to their production, why is it that the same remedies are not subservient to the purpose of curing either form of the disease? In answer to this, we have only to direct our attention to the circumstance that in the one, the mucous tissue is the seat of disease, whilst in syphilis other organs and tissues are affected, such as the glandular dermoid, osseous and fibrous structures, sometimes involving the

whole fabric of man in one complicated mass of disease. And hence it will appear that in directing our treatment we should take for our guide the tissue affected, the form and stage of the disease; for whilst the one demands comparatively mild means for its removal, it will be found that the other requires great exertion, and the most general remedial agents to arrest its progress and procure its eradication from the system when it becomes involved.

It is a well established principle in practice to adapt our remedies not merely to the organ affected, but to the particular tissue of that organ; thus mercury is known to produce mischievous effects when when directed to the cure of diseased mucous surfaces, whilst through its salutary operations the most happy results have been obtained, and is especially applicable, in most glandular diseases, and those affecting the general system which are often attended with the most disastrous consequences, and in which, with regard to the medical properties of this article, it may with very great justice be said, "avertit morbos, pericula metuenda pellit." If in illustration of the premises, mercury or any other remedies applicable to the constitutional form of the venereal disease, be given in the gon-

orrheal form, where the disease is seated in the mucous lining of the urethra, they will for the most part prove nugatory if not injurious; but, let the general system become implicated by the absorption of this same virus which is generated in the urethra, and it is then, that mercury and other constitutional remedies come most happily to our aid, without which, man would oftener prove the subject of an ignominious death and an untimely grave. It is upon this same principle in practice, that we are lead to abandon the usual remedies of the local disease, when it becomes constitutional. In this last case, of what service would diuretics and injections, so necessary to the cure of the primary affection, prove in arresting the obstinate career of disease? In vain might we expect or even hope for relief from their remedial powers, and thus be left to linger out a miserable existence, relying, perhaps too much in specific diseases and specific remedies.

Another prominent objection to the sameness of the two diseases has originated in the fact, that gonorrhœa is not followed in every instance by syphilitic symptoms; and this circumstance has induced those who are opposed to their identity, as also others

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who are sceptical on the subject to ask, if gonorrhœa is capable of assuming the syphilitic form of disease, why does this occurrence not happen oftener and with a greater degree of certainty? To obviate this objection, if the structure and functions of the parts in gonorrhœa be taken into consideration, it will at once be perceived that there are very great difficulties opposed to the introduction of the virus into the circulation, by which the system at large can alone become diseased.

The mucous secretion accompanying the virus of gonorrhœa has a very great agency in destroying the acrid and morbific qualities of this poison, so as to render it less effective on the parts to which it may be applied. Besides, it is proved by numerous post mortem examinations, that ulceration of the urethra never takes place even in the worst forms of this disease. And it would seem from this exemption of the urethra to the ulcerative process, that the mouths of the absorbent vessels are thus prevented from coming in contact with the virus; for it will not be asserted that secondary symptoms supervene a gonorrhœa, when the integrity of the membranes and common tegumentary covering is uninterrupted. And considering

the paucity of cases in which this interruption occurs, as well as the uncertainty of the application of the matter of gonorrhœa to them in every instance, it may be readily seen, why the secondary effects of gonorrhœa, do not always manifest themselves, and why in every case of this disease we may not be lead into anticipation of these sad consequences.

There are other various and multiplied objections which have been urged in opposition to the pathological views adopted in relation to the subject of consideration. But as an examination of these separately would lead to a further digression from what was my intention in the commencement of the subject, which was cursorily to notice some few, which occured to me as the most prominent and plausible; and since these remaining objections for the most part, consist in inferences and arguments derived from attaching an undue value to negative proof, they will be passed over without further consideration than occasion may require, relying upon facts for their refutation, as also for support in the opinions advanced in this essay.

Consulting the writings of Swediaur as authority, in relation to the sameness of gonorrhœa and syphilis, which seem to differ only

in name and the seat of disease, we shall find several cases of secondary or syphilitic symptoms originating from gonorrhœa. In this work to which reference has already been made, the fact is distinctly stated of gonorrhœa having been caused, by the introduction of syphilitic matter taken from an ulcer into the orifice of the urethra; and we are assured in the language of this author that he has "known many cases where persons affected with clap without any ulcer have communicated chancres and vice versa". Nor is the testimony of Cullen, so famed for nice observation and discernment in diseases, wanting in confirmation of these points. Upon this subject he expresses his views in these words "I am convinced that the infection producing gonorrhœa and that producing chancres are one and the same". These facts and opinions conjoined with similar examples entitled to the the highest consideration, both of older and more recent date, prove beyond a doubt that chancres and syphilis are caused by the infectious matter of gonorrhœa; and in addition to these, a case is here subjoined as coming under my personal observation, and for the accuracy of the statement, and the inferences drawn from it, I am sure I do not err, having had an opportunity of witnessing it through all the

various stages, and Protean forms in which the disease appeared.

Mr — contracted a gonorrhœa attended with the usual symptoms, such as ardor urinæ, a discharge of purulent matter from the urethra, chordee &c. These symptoms were treated, by purgatives, low diet and diuretics for nearly a month, when the disease having abated in violence, the patient imprudently allowed himself indulgences by which the disease was much aggravated. About this time a slight excoriation of the prepuce occurred of which the patient complained, and the inflammation running to a considerable height it was thought proper to envelope the penis in a large poultice, this was continued for two or three nights, during which time the inflammation was very much reduced, and the abraded surface and an observable tumefaction of the prepuce, were not regarded with further complaint at this time. In a few days, however the abraded part of the prepuce commenced a discharge of matter, and from this time, assumed all the characters of a troublesome ulcer; the inguinal glands became considerably enlarged and very painful, and the case having put on a new aspect, at the same time that the original disease continued with unabated violence, it was thought advisable to

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consult the opinion of an eminent and distinguished practitioner of this City as regarded the character of the ulcer and the treatment necessary to be pursued. If my understanding of his opinion does not deceive me, it was pronounced to be a genuine syphilitic ulcer; and for its cure, as well as the inguinal affection, the blue pill and black wash were prescribed and used. Moderate ptyalism was induced by the use of the mercury, and all these appearances of syphilis were removed by the healing of the ulcer and the absence of pain or enlargements of the lymphatic glands of the groin. But this, which proved only a temporary calm to the feelings and suffering of the patient, seemed to be the harbinger of more calamity and dire events; for the storm which had been menacing the invasion of the hitherto unshattered vessel, seemed only to have subsided to acquire greater impetuosity in order to engulph its victim with a deluge of disasters.

After the expiration of twenty or thirty days from the disappearance of the ulcer and buboes, the discharge from the urethra having continued all this time, other secondary symptoms were developed, commencing in ulceration of the tonsils, and deep excavated sores dispersed ~~over~~ over the face, about the forehead, the alæ nasi, and the angles of the

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lower jaw. Ashcoloured or livid blotches succeeded these, occupying the body, superior and inferior extremities; and finally the disease ended in nodes of the tibia and ulna.

During the continuance of the secondary symptoms which lasted about ten months, mercury in the form of the blue pill, and the compound decoction of sarsaparilla were alternately used. At several times, the patient was so far induced to consider himself well, as to lay aside the use of the remedies, and the failure in effecting a cure during so long a time, I think from subsequent experience may be attributed in part to the want of perseverance in the use of the sarsaparilla, or else to the too long continuance of the mercury, from the effects of which article the constitution of the patient has suffered manifest injury. After the appearance of the nodes, mercury was entirely discarded, and the syrup de Cuisinier assisted by the antiphlogistic plan was wholly relied upon to effect a cure, and the patients health may now be considered as pretty well established; the nodes having disappeared, and no remains of disease continuing from which he has suffered immensely for nearly twelve months.

I am assured that no sexual intercourse was indulged in by the patient since the commencement and during the continuance of his disease, by which, the possibility of his having by any such communication contracted a syphilis is done away. And, unless it be admitted that gonorrhœa does give rise to syphilis in the way already attempted to be described, how can it be supposed that this train of constitutional disturbance was excited? I am aware that some, to supply the deficiencies in argument and facts where such difficulties are presented for solution, have by their ingenuity substituted the possibility that both gonorrhœa and syphilis, in this as in all similar cases might have been contracted at the same moment, and that the one may have remained quiet and dormant in the system for some time, until a certain state or peculiarity of constitution called its concealed poison into action, thereby producing the diseased state which is here considered as referable to gonorrhœa. If in the absence of all proof that such a state or condition of the system, or of the virus of syphilis does exist, in all those cases in which gonorrhœa is succeeded by syphilis; and this supposition be admitted in opposition to the inferences drawn from such facts as in the preceding case, may we not by an extension of

this kind of privilege be enabled successfully to combat and even subvert most or all of the fundamental principles of the animal economy, which have been long established and hitherto withstood the test of time and scrutiny of past investigation?

Heretofore my remarks have been chiefly confined to the consideration of gonorrhœa in the production of secondary symptoms of a venereal character; but, as the subject also embraces the identity of the virus in either case, to prove which, it yet remains to adduce evidence to sustain the doctrine that syphilis is sometimes the cause of gonorrhœa.

It will be conceded that this result is rarely obtained, except when direct experiments have been resorted to, in order to ascertain the truth of the above position. The reason of the infrequency of this occurrence may in a very great degree become obvious from the uncertainty of the application of the matter of a chancre to the lips of the urethra, and the obstacles to its insinuation or introduction into this canal. Experiments, however, performed by those to whom I have already referred as authority, by Van Swieten and others, clearly demonstrate the fact, that the matter of a chancre is productive in numerous instances of gonorrhœa.

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In denying that syphilis is ever the cause of gonorrhea some go so far as to say, that the matter of a chancre will not produce any kind of ulcer whatever. But, if the authority opposed to this assertion is to be received, it must be admitted that proof of such a negative character stands upon a slender support, and cannot be fully sustained, with such positive evidence arrayed against it. Failures in obtaining anticipated results from experiments, should not lead us into such inferences, when other experimentalists have successfully and satisfactorily shewn that these results may be obtained; for it often happens, that experiments in other ways than where the matter of a chancre is used, fail at one time, when under more propitious circumstances they are attended with an uniformity in certainty and success. Sometimes in inoculations with the matter of small pox, either from the impurity of the matter, or from some other cause we fail in producing the variolous affection; but, should we be lead by this into the error that the human system cannot be operated upon in this way? Or should it be supposed, because a person may have been exposed again and again to the causes of small pox in the natural way and escaped without disease, that he shall in future be exempt from the influence of this infection? And let this last proposition be admitted, can we from that fact, arrive at the

conclusion that small pox is incapable of reproducing itself? Precisely in the same relation does syphilis present itself when the similitude of effects are contrasted with those of small pox; although it is cheerfully conceded, that the former is not so invariable, as the last mentioned disease, in the consequences to be ascribed to it.

In the preceding pages I have endeavoured in a succinct manner, to explain some of the most common, familiar and at the same time most plausible objections, which have usually been urged in opposition to the opinion adopted and advanced in this essay; at the same time facts have been presented in corroboration of these views, in place of tedious arguments, from which it appears that gonorrhœa and syphilis have a common poison, and possess a reciprocal action in the production of each other through the intervention of this common cause of these morbid states or conditions of the human system. It then becomes evident that the various appearances assumed by these forms of disease, do not originate in their specific character, but proceed from the structure of the parts in which the morbid action induced by the infection is seated; and in accordance with the views of Dr. Cullen, in discriminating between these forms and appearances, we must be guided by the local or general symptoms present.

Without indulging in other observations and enquiries involved in this discussion, which might probably exceed the reasonable limits of a prorotion of this lecture, I shall now dismiss the further consideration of this part of the subject without any other remarks and pass on to the Treatment of gonorrhoea.

In the incipient stage of gonorrhoea there is always more or less inflammatory action present, which increases with the progress of the disease, unless the proper correctives and preventives be applied in due time. To counteract this tendency in gonorrhoea constitutes the first indication in attempting a cure, and upon the most rational principles in practice, bloodletting especially if the symptoms of inflammation attain any height, purgatives, absolute rest, low diet, and the total disuse of all stimulating drinks will be found eminently subservient to our purpose.

Purgatives should in no case be omitted in the commencement of this disease. By early resorting to them and persisting in their employment for several days, the disease has been arrested and a perfect cure performed without the assistance of any other remedy, further than what is derived from abstinence and rest. For this purpose a preference has

has been given to a combination of jalap and supertartrate of potash in small and repeated doses. The sulphates of magnesia and soda, also are frequently used as purgatives in subduing the inflammation.

If the disease refuse to yield readily to the preceding remedies, we should conjoin with this course of treatment the administration of diuretics. Among these, balsam copaiva deservedly stands foremost, and should be resorted to regardless of inflammation. For this practice we are indebted to Professor Chapman, and experience has fully tested the high value and reliance justly due to it. It may be given alone dropped in water or on sugar in the dose of twenty or thirty drops three times a day, to be increased daily; or the following formula may have a preference: ℞ Balsam Copaiva, Spts: Nit: Dulc: aa ℥ss Tinc: Opii, Spts: Lav: Compos: Pulv: Gum Arab: aa ʒi Aqua Font: ℥viij, to be minced together and a table spoonfull given three times a day. The late preparation of this article, by which it is made into pills, seems well calculated to supply the other forms in which it is administered alone, when nausea and other disagreeable effects are excited. The spirits of turpentine is also a highly useful remedy in gonorrhoea, and may be

advantageously united with the balsam copaiva. Whilst on the subject of diuretics in this disease, it may be proper to mention cubebs as a remedy of late highly extolled by some practitioners. Its reputed virtues are, however, very much questioned by others; and as it is most frequently administered in combination with other diuretics, and more especially with balsam copaiva, may we not fairly infer that it sometimes shows in borrowed colours.

Demulcents, both as a local and constitutional remedy should not be lost sight of in any of the stages of gonorrhea. They seem peculiarly well calculated, by their admixture with the virus, to blunt its acrid qualities, thereby calming the irritation of the parts and affording the most soothing relief. Among this class, I would be permitted to mention the inner bark of the elm tree known under the vulgar appellation of the slippery elm, as possessing qualities not inferior to any of the class, and in many respects entitled to a decided preference. It is this species of the elm that has gained considerable reputation in some parts of Virginia, in the treatment of dysentery.

Among the topical remedies in gonorrhea, injections have been long known, but, the propriety of using the astringent kinds, has been objected to,

on account of the discharge being sometimes prematurely checked by their employment in the early stages of gonorrhoea. That this objection is over founded, as regards the more astringent injections, there can be no doubt. But, we have the most abundant evidence of the good effects, in this stage of the disease, of such as are of a mild character, with mucilaginous ingredients entering into their composition; such as barley water, rice water, flaxseed tea, mucilage of gum arabic, and to any of which may be added laudanum or balsam copaiva, so that these last be very much diluted by the mucilage and water. After the inflammation is somewhat subdued, or the disease has continued some time, the more astringent injections may be used, such as solutions of sulphate of zinc, alum, or borax, but, they are to be used with some regard, in their commencement, to the strength of the solution. The nitrate of silver, and nitric acid have been employed with much success. The former Professor Gibson considers as superior to any of the other articles mentioned, and may be used in all the stages of gonorrhoea. Another mode of using the nitrate of silver consists in mixing it with a small quantity of oil and smearing a bougie with the same, which is to be introduced into the urethra.

Chordee is a very frequent and distressing symptom in this disease.

The best remedies I have seen tried, and which seem to receive the sanction of almost every practitioner, are opium in large doses combined with camphor, and the extracts of stramonium and belladonna. As the attack of chordee usually commences in the night after the patient is in bed, it is advisable that the opium and camphor be given a short time before the hour of rest. The extract of belladonna, or stramonium is to be rubbed along the under part of the urethra; the last article seems to have obtained a preference in practice of the two, and in frequent and continued attacks of chordee which sometimes become chronic, it claims a superiority over the other narcotics. When these remedies have been neglected, or fail in warding off the attack, in this emergency the sudden application of cold water or ice to the parts has afforded instantaneous though for the most part temporary relief.

Sometimes a too sudden suppression of the discharge in gonorrhoea is induced, either by the ill-timed use of some of its remedies, or from some other cause. In this state the pain is greatly increased, and the inflammation travelling along the urethra to the vasa efferentia is conveyed by them to the testes causing hernia humoralis. To relieve this condition, nothing seems so prompt and effectual as warm fomentations

but more especially warm poultices of milk and bread, which should be large enough to envelope the penis completely and to be removed several times in the course of the day having its place supplied by a fresh poultice at each removal.

The inflammation may have attained such a height, unaccompanied by a suppression of the discharge, as to require the aid of poultices, and in addition to those already mentioned the saturnine poultice applied cold, has proved very successful in allaying this inordinate excitement.

Frequent ablution of the parts with tepid, or cold water as may best suit the feelings of our patient, and the greatest regard both to personal cleanliness and that of the dress, are of the first importance in the treatment of gonorrhœa in every stage, and should be rigidly enjoined in our prescriptions. By a due regard to these points to which the attention should be constantly directed in practice, much is added to the comfortable feelings of our patient; besides, they constitute in a great degree the precautionary safeguards against the encroachment of this disease upon the constitution, when it becomes one of the most formidable maladies with which our art has to contend.